ADDRESSES

AT THE

INAUGURATION

JAMES C. WELLING, LL. D.,

President of the Columbian College,

WASHINGTON, D. C.,

Monday Evening, November 6, 1871.

WASHINGTON:
GIBSON BROTHERS, PRINTERS.
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George Washington university,
Washington, D.C.

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INTRODUCTORY NOTE.

THE public inauguration of James C. Welling, LL. D., as President of the Columbian College, took place on the evening of November 6, 1871, in the Congregational Church, corner of Tenth and G streets, Washington, D. C.

The exercises were opened with prayer by the Rev. James H. Cuthbert, D.D., after which the Rev. George W. Samson, D.D., delivered a Farewell Address, as the retiring President of the College.

An Ode, written for the occasion by the Rev. Stephen P. Hill, D.D., was then sung, upon which the Hon. John A. Bolles, LL. D., Vice-President of the Board of Trustees of the College, delivered to the newly-elected President the keys, symbolical of his office, and accompanied their presentation with an Address, at the close of which he formally introduced Dr. Welling, who thereupon proceeded to deliver his Inaugural Discourse.

The exercises were closed with a Doxology, sung by the audience, and with a Benediction pronounced by the Rev. Cleland K. Nelson, D. D., Vice-President of St. John's College, at Annapolis, Md.

The following pages contain the Presentation Address of Mr. Bolles and the Inaugural Discourse of President Welling, as published by request of the Executive Committee of the Board of Trustees.



REMARKS

OF THE

HON. JOHN A. BOLLES, LL. D.

MR. WELLING:

The Board of Trustees of the Columbian College had, until this morning, hoped that their respected and beloved President, Wm. W. Corcorn, Esq., "clarum et venerabile nomen," a gentleman identified for a long series of years with every enterprise intended to promote the welfare and prosperity of this District, would have been able, not only to be present on this occasion, but also to take an active part in these Inaugural Ceremonies; to place in your hands the keys of the College as symbols of your official powers and duties, and to address you, for a few minutes at least, upon the topics suggested by that presentation.

Mr. Corcoran, however, does not feel well enough even to read the one short sentence which he had written, and at his request I take his place, and, yielding to his urgency, I shall, as the Vice-President of the Board of Trustees, first read to you his own carefully chosen words, and then add thereto a few observations of my own, which seem to be called for by this interesting occasion.

He intended to say:

"President Welling, it affords me great pleasure to place in your hands the keys of the Columbian College, and to express my belief that your execution of the important trust confided to you will be characterized by ability and zeal"

Sir, the "belief" of Mr. Corcoran is also the belief of

the Board of Trustees, who have unanimously elected you President of the College. That belief and that choice were founded upon a long and familiar acquaintance with your intellectual power, your moral worth, your ample learning, and your administrative and executive ability. This knowledge guided our action and choice when, upon the resignation of your predecessor, it became our duty to select and appoint a new President for that seat of learning, the management of whose general interests is confided to us, but whose success depends far more directly, and far more largely, upon its President than upon the Trustees them-We felt, very deeply, the responsibility devolved upon us by the retirement of the Rev. Dr. Samson; and we felt also, as our thoughts and eyes turned toward you, that you were the man to fill, with honorable success, the position thus vacated.

We now feel that our choice was wise, and that your acceptance of the offered Presidency justifies us, and the public in whose midst you have so long dwelt, in expecting for the College a brilliant and successful future. We feel sure that our convictions and our hopes are echoed in the hearts, (as they seem to shine in the faces), of this assembly, composed, as we believe it to be, of gentlemen and ladies who are the delegates and representatives of a public far too large to find seats in this spacious audience-room.

With such convictions and confidence, with such faith and hope, we give you these symbolic keys. They are six in number. The first is the key of the President's house. Take it, sir, feeling that your house is your castle, and that we shall not presume to interfere with your domestic rights and duties. They are your exclusive domain, and will, I doubt not, be worthily exercised and enjoyed. May you long and happily find a home in that dwelling, surrounded

The second of these keys opens to you the door, the control, the prosperity of our Preparatory School, the nursery of our College, within whose walls are to be trained and disciplined the younger pupils confided to your oversight. Then comes the key of the College proper, wherein our ingenuous youth are to be prepared for admission to studies and schools more strictly professional—which schools and studies are opened to your authority and care by these three other keys—the keys to our Departments of Law, Medicine and Theology. Receive these all, sir, as tokens of our confidence in you, as emblems of your authority, and as symbols of your duty. With them open and occupy all those Departments of our beloved College; and while with them

you thus take possession of these abodes of learning, may you, in the exercise of the powers which they represent, open the hearts, and possess the minds, and form the lifelong habits, of more than one generation of loving and

deserving disciples.

We give you now these six keys alone. But ere long we expect to increase their number so as to represent every department of learning needful to the formation of a University as broad in its endowments, in its plans of instruction and its field of duty, as the wants of the great people in whose centre and Capital it will be placed. We hope—we purpose—so to enlarge this College that within its walls shall be studied all arts, all sciences, all literatures, all professions, occupations, and callings which the ambitious youth of our glorious Union may desire to study or pursue; that here, in an institution worthy of the great Capital of a great nation, may be taught and learned whatever develops and adorns the mind and soul of man.

Such is the determination of the Trustees, who have

chosen you to administer this College of the present, this University of the future. We know that you fully sympathize and concur in this plan and purpose, and that you believe with us that such a future is a not distant possibility. So thinks our venerable and beloved head! Nor will you or I, or any of us, forget the pleasant, prophetic light which beamed from his eyes on a recent occasion, when, after conference with us upon this glowing theme, he exclaimed: "Gentlemen, it depends upon us whether this great scheme be carried into full execution!"

LADIES AND GENTLEMEN, I now have the pleasure of introducing to you JAMES C. WELLING, LL. D., President of the Columbian College, who will deliver his inaugural address.

INAUGURAL DISCOURSE

OF

PRESIDENT WELLING.

THE FUNDAMENTAL ELEMENTS OF INTELLECTUAL EDUCATION.

The subject of Education offers a theme for discussion at once the most easy and most difficult; the most easy if we content ourselves with the rehearsal of common places on the topic, such as are universally received among men; and the most difficult if we undertake to propound a theory of education which shall be in all respects true without being trite, or novel without being in some respects un-Education is a subject on which men have been thinking and writing from the very dawn of intellectual activity in the race, and yet it is a subject on which men widely differ, even at the present day, in regard to both the processes and the objects of that higher training which looks to the best attainable good of the human mind. diversity of credence and practice springs, in a great degree, from the fact that all Education is partly an Art and partly a Science; so much an art that it must ever depend on the varying skill of different teachers, and on the varying aptitudes of different learners, but, at the same time, so much a science that all forms of education, having regard to any specific end, cannot be equally good, and, among the various competing theories of mental culture, there must be one which, on a consideration of all the elements involved in the problem, we can adjudge to be the best that the wit of man has thus far been able to devise. For, however the

elements of the problem may differ, according to the capabilities of the teacher, the capacity of the scholar, the ends which the scholar proposes to himself, and the general wants of society in any given age, there must still be a scheme of education which, "smoothed, and squared, and fitted to its place," shall be more wise and more expedient than any other—a scheme in which the applied art of education shall be based on such scientific foundations as the nature of the case may admit.

Accepting the theme thus suggested to me by the proprieties and formalities of this occasion, I have, in the first place, to inquire what is the object which we should set before us in determining the elements of higher academic learning. For with the lower stages of juvenile culture we are not directly concerned to-night, and, as to them, there is not so much room for difference among educators. cording to the terms of the problem proposed by higher education, we are called, as I conceive, not to discuss the special adaptation of specific educational studies designed to meet the requirements of any particular vocation in industrial or professional life, but to investigate the fundamental elements of that more liberal and generous culture which looks to the symmetrical development of the whole man in all his powers and capacities. And as this is the object of higher academic education, it necessarily follows that any system of such education must be defective if it omits from its purview any one of those essential studies by which the human race has been advanced to its present civil, social, intellectual, moral, and religious status. As in ancient Egypt men were able, it is said, by the graduated scales of the Nilometer, not only to measure the depth of the fertilizing waters that covered the land but also to predict the extent of the coming harvest, so from the standard of educa-

tion in any age we may not only gauge the degree in which it rises to the wants of the present time, but may also forecast the destiny it prefigures to the coming generation. Institutions of higher learning are founded among men to perpetuate and to transmit the existing stock of knowledge in all those departments which conduce to the intellectual progress of our race. Failing in this end, whether from a defect in the methods or means of education, they visibly fall below the standard erected for them in the requirements of the living age. But they do not subserve all the ends of their creation by achieving this purpose alone. It is not enough for educators, in the higher walks of their art, to preserve and propagate the elements of didactic knowledge, but they are bound so to impart these elements in all their fulness and vitalizing power, as to create the conditions of a growing advancement in learning and civilization. accomplish these great objects the teacher must have equal regard to the number and quality of the subjects taught, and to the method, and order, and spirit of his instructions. "Teachers," says Bacon, "are not ordained for transitory uses, but for the progression of the sciences—ad sufficiendam sobolem scientiæ in sæcula " No university, it is true, even in all its Faculties, can teach, as Sir William Hamilton has said, the omne scibile, but a university can comprise in its curriculum such "a compend of the past thought and cultivation of the race" as shall be reduced to the shape and dimension best fitted to be taken in by the minds of the present generation, and therefore best fitted to promote the growth of culture.

It was from a disregard of this latter educational requirement that the progress of mental culture was arrested in Greece so soon as the pedagogues, who succeeded the age of original inquiry, contented themselves simply with the existing state of knowledge, instead of so learning it themselves, and so teaching it to their pupils as to propagate, with knowledge, the love of it, and thus to stimulate and direct that spirit of inquiry which leads to never-ending conquests in the world of Thought and of Nature. And so, too, during the Middle Ages, knowledge came to a stand-still in Europe, not from any torpor of the mental faculties among the School-men, for never were men more laborious and more acute than they; but because their mental activity revolved in the verbal philosophy of Aristotle as if in a treadmill, and was not suffered to go beyond the tether of that professorial and didactic discipline which bound it to the Past, as if the Past had contained in itself the be-all and the end-all of human philosophy. They failed to see in the successive stages of human history the stepping-stones of an everadvancing progress. Under such a theory science degenerates into a mere logomachy, and literature dwindled into a dry and formal rhetoric. Education was still conducted in the Trivium and Quadrivium of the Cathedral and Cloistral schools with a vast expenditure of logical apparatus brought to bear on topics which lacked the quality of real truth, and which, from defects both of substance and form, failed to afford either the basis or the instruments of a higher intellectual proficiency. The world was then not indeed without its Doctors, "divine" and "transcendental" and "irrefragable;" but from Peter Lombard, its famous Magister Sententiarum Sapientum, to John of Occam, its redoubtable Doctor invincibilis, singularis et venerabilis, it was without teachers who rightly apprehended either the elements or the methods of that true intellectual culture which teaches men not only what to know but also how to learn. It is only in so far as the Occidental Nations have made learning

reproductive and progressive that "fifty years of Europe" are, as Tennyson tells us, better than "a cycle of Cathay."

But even when it is said that higher academic education must at least aim to transmit the existing sum of knowledge unimpaired, we have, by necessary implication, defined, in a measure, the methods and means of university culture, for it is obvious that the essential factors of that knowledge which constitutes the mental wealth of the present age must enter into the constitution of any scheme of studies designed to impart the higher education in its complete-The education of the individual, as that of the race, may be said, indeed, to depend, in the most comprehensive sense of the word, on all those complex influences of the past and present which have combined to determine the resultant intellectual state of humanity. The Present is what the Past has made it, and bears in its bosom the germs of the Future. But, confining our view, as we do on this occasion, to a general survey of the fundamental elements which enter into the present constitution of human knowledge, we may say, with Bacon, that out of the five-andtwenty centuries over which the memory and learning of men extend, we can hardly pick out six that were fertile in sciences or favorable to their development. Speaking from the point of view reached in his day, he adds:

"Only three revolutions and periods of learning can be properly reckoned—one among the Greeks, the second among the Romans, and the last among us; that is to say, the nations of Western Europe."

In a still wider survey of human progress on the line of man's intellectual education, it may be said that three great civilizing nations have mainly determined the quality and the range of those studies which lay the basis of modern intellectual life and culture. We derive from the Hebrews the rudiments of that knowledge which ascertains the relations of man to God, and which lays in Divine Theology the foundations of both theoretical and practical ethics. Of this education, the Family and the Christian Church are at once the peculiar guardians and the most efficient agents. But no scheme of university education can, even on intellectual grounds, ignore the Wisdom that cometh from above, and which is profitable to direct in all things. The college which does not write Jehovah-Nissi on its banners has already written Ichabod on its door-posts.

And as the elements of our religious culture have been mainly transmitted to us by the chosen people of God, so the elements of our intellectual and political education have been primarily derived from the Greeks and Romans. It is the Greeks and the Romans who have been the federal representatives of humanity in all that pertains to the original institutes of secular learning, literature, art, and polity—the great elements which have mainly combined to make our intellectual condition what it is to-day.

Now, if it be true that a liberal education "consists in sharing in the best influences of the progressive intellectual refinement of man;" if the present age is not independent of the ages that have preceded it; but if the days of the race, as of the individual, are bound each to each by a sort of natural piety, it needs no elaborate argument to vindicate the place which the Grecian and the Roman languages and literatures must hold in any course of studies designed to furnish the basis of an integral education of the intellect.

When Dr. Arnold, the honored Master of Rugby School, in England, first caught a view of Rome, as he drew near to that "City of the soul," on the occasion of his visit to Italy, in the year 1840, he exclaimed: "Of earthly sights, this is the third—Athens and Jerusalem are the other

two—the three peoples of God's election, two for things temporal and one for things eternal." As the thunders of Sinai still peal through the innermost recesses of man's spiritual nature, so from the Acropolis of Athens we still catch, as it echoes down the "corridors of Time," the reverberation of that resistless eloquence which once "fulmined over Greece," while in Roman polity and in Roman literature we still find the traditions of a civilization which has become part and parcel of modern times.

But it is argued by some that for this very reason, because the modern civilization has absorbed the best elements of Greek and Roman life, we may omit the cultivation of Greek and Roman letters in order to devote the more attention to the modern literatures of Italy, or France, or Spain, or Germany, with which we stand in more direct and immediate relations.

In reply to this allegation, I have only to say that when I am referred to the case of any scholar who, after mastering the tongues, and familiarizing himself with the literatures of modern Europe, for purposes of mental culture, has been content to turn away from the great original fountains of culture in Greece and Rome, it will be time enough to reconsider my estimate of the place and value traditionally assigned to the ancient classics. Shall we put the study of the German in the place of the Greek? But we find Schiller, as he says, delightedly walking under the intellectual sky of Greece, that he might learn how to purify the strains of his German muse. Shall we put the Italian in the place of the Roman tongue? But we find Dante in his great poem referring to Aristotle as il maestro di color che sanno, and turning a reverential eye to Virgil as to the source from which he derived the beautiful style that has done him honor and immortalized the Divina Commedia.

Some years ago, when the subject of education was under discussion in the French Chamber of Deputies, M. Arago, then a member of that body, is represented to have held the following language:

"I ask for classical studies. I require them. I deem them indispensable. But I do not think that they must necessarily be in Greek and Latin. I wish that in certain schools these studies should be superseded, at the pleasure of the municipal authorities, by a thorough study of our own tongue. I wish that in every college it might be permitted to put in the place of Greek and Latin the study of some living tongue. I require even that the language thus substituted may be different according to the situation of the place—that at Perpiguan and at Bayonne, for instance, it may be Spanish, at Havre the English, at Besançon the German."

I entirely concur in this view of the French physical philosopher wherever the object of education is partial and not integral—aiming at professional or artisan dexterity as a means of livelihood, rather than to perfect the whole man by the full, harmonious, and thorough development of his capacities. If it be the mission of the French college, in the idea of Arago, to equip the stores of Perpignan and Bayonne, of Havre and Besançon, with fluent corresponding clerks and despatchful commissionaires, it cannot be doubted that he has suggested the most expeditious means of reaching that object. But it has been commonly supposed that University education aims at something higher than this. It proposes to develop the whole man that he may, in the truest sense of the term, be an end to himself, and not to the end that he may excel in any single manipulation of handicraft life. This minor and special education has, indeed, its uses, and for the great mass of mankind it is the only form of education which can be adjusted either to their condition or the wants of society; but it is not the

education which will keep the great channels of thought and culture open to the influx of that mighty current which has thus far borne our race to higher and still higher levels in the world of science and in civilization. They who would take the tide of modern civilization at its flood in Germany or France, but who, at the same time, would dam up the stream of knowledge as it has descended to us from Greece and Rome, propose to themselves a problem no more sensible than that of the engineer who should think to improve the navigation of the Mississippi river below New Orleans by cutting off its affluents, the Ohio and the Missouri.

While I thus advocate the right of the ancient classical tongues to retain their hereditary place in intellectual education; and while I assert for them, considered as instruments of education, an advantage over the study of modern languages, I would not have it supposed that I am indifferent to the just claims of the latter, and especially would I guard against the presumption that I am indifferent to the scholarly culture of our own noble language, and of that peerless literature which we inherit as a birth-right. I advocate the study of the ancient classics because I believe them indispensable to the thorough study and scholarly appreciation of any modern language, or of any modern literature, not excepting our own.

If, then, on historical and logical grounds, as well as from considerations of scholastic discipline and utility, we must claim for classical learning a necessary place in any scheme of university education, it is equally easy to establish the right of the higher mathematics to be included in any such scheme. Mathematical studies were an integral element, if not, as some maintain, the starting-point of that intellectual reformation which dates from the time of Plato. And men have curiously speculated what the Greek

civilization might have become if the Greek education had continued to be essentially mathematical, as it was in the days of Plato. It was not until this education had declined that the ancient astronomy became entangled in a cumbrous apparatus of fixed and crystalline spheres,

> "With centric and eccentric scribbled o'er, Cycle in epicycle, orb in orb:"—

a system incapable of reduction to any form of geometrical analysis, and which, therefore, failed to afford the conditions of scientific progress, or to substantiate itself to the reason of men. It is because Numbers, and Form, and Motion in periodic times are the *principia* of the universe that the "Principia" of Newton can never perish from the memory of man. Whether regarded as a means of discipline or as an instrument of scientific research, the higher mathematics must ever assert their appointed place in any theory of education which proposes either to strengthen the reason of man or to explicate the phenomena of the universe.

If it be, as I have argued, the function of a University not only to embody and perpetuate the existing store of human knowledge, but also to consult for "the progression of the Sciences," it necessarily follows that the sciences based on physical research must occupy a prominent place in any system of modern intellectual education. Considered apart from the modifying force of Christianity, our Modern Age differs from that of Greece and Rome mainly by virtue of those positive sciences which have shed such a surpassing lustre on every path of modern life and on every walk of modern art. And these sciences, more than any others, contain in themselves the conditions and the presage of a neverending advancement. Here are the fountains of a knowledge which wells up from the very bosom of Nature. Here

are the rudiments of that "potential physics" which enables the finite mind of man to re-think the thought of God in creation, as, step by step, we retrace the presence and working of that Law whose "seat is in His bosom, and whose voice is the harmony of the World." The Dervise of Balsora, in the Arabian tale, gave to Baba Abdalla a precious ointment that opened the eyes on which it was laid to behold all the riches hidden in the earth; but infinitely more precious is the eye-salve of Positive Science, which not only opens our eyes to behold the riches of the earth, but purges our intellectual vision, that it may read the works of God by the light of reason, and no longer by the shadows they cast in passing before the senses of man.

If it be a ground of just wonder that the devotees of classical culture should have once denied to the physical sciences their legitimate place in any scheme of university education it remains none the less a duty to resist the pretensions of those who would assign to these sciences a too exclusive position in the scholastic curriculum. Yet Mr. Herbert Spencer, in considering the question, "What knowledge is of most worth?" has not scrupled to say that the study of science (meaning physical science) "is the best preparation for every order of human activity."

Now, it cannot be doubted that an exclusive devotion to the physical sciences must wreak itself in a practical paralysis or distorted growth of those faculties which, under such a training, are left to pine without cultivation. We hold with Sir William Hamilton, that "a knowledge drawn too exclusively from without is not only imperfect in itself, but makes its votaries fatalists, materialists, pantheists: if they dare to think, it is the dogmatism of despair." And hence it is that the great founder of the so-called Positive Philosophy in France, M. Comte, has ventured to say that

in his eyes "the heavens declare no other glory than that of Hipparchus, of Kepler, of Newton, and of all the rest who have helped to establish the laws of celestial phenomena." Such was the blindness of this great thinker as he sat enthroned amid the blazing hierarchy of the sciences, while to the ears of even a heathen philosopher of the fourth century before Christ the planets rolled in their orbits with a rhythmic music which attested the master hand of the Divine Harmonist who first set the notes of their grand diapason; for the eyes of Plato were opened to see that the starry heavens, resplendent as they are with a beauty that surpasses "the beauty of figures wrought by the hand of Dædalus," were set before the mind of man to serve as "the patterns of knowledge," and not to feed the vanity of stareyed Science.

It is in view of the extravagances which result from the perversion of the physical sciences when thus misdirected in their aims, and exaggerated in the aspirations of their votaries, that we may next propound another kind of studies which constitute a necessary part of intellectual education, as they also furnish a corrective to the aberrations of a philosophy which moves exclusively in matter and in the phenomena of necessary law. I allude to speculative philosophy, as well in its ontological as in its psychological departments -a study which, at its very outset, as a modern writer has remarked, calls up the great questions that pertain to the foundations of our knowledge, with the possibility of absolute truth, the limits of the human intellect, the reality and the nature of the distinction between object and subject; that is, the relation between the macrocosm without us and the microcosm within us; and, at a higher point of inquiry, the relations of the Finite to the Infinite, of the mind of man to the mind of God. These tremendous questions will

not down at our bidding. They have haunted the minds of thinking men in all ages, and perpetually allure, as they perpetually baffle, the human understanding. No man can be called educated who remains ignorant of the attempts that have been made by the great philosophers of different ages from the dawn of speculation in Greece down to the present day, to furnish a solution, more or less satisfying, of these grand problems of human being and destiny. And this we must say, while freely admitting, with one who was the profoundest critic of all existing systems in philosophy, as he was also the profoundest speculative thinker of modern times, that "the past history of philosophy has been in a great measure a history only of variation and error." "If," as he argues, "it be right to philosophize, we must philosophize to realize the right; if to philosophize be wrong, we must philosophize to manifest the wrong; on either alternative, philosophize we must." The study of metaphysics cannot be sundered from the rational study even of physics. As Goethe tersely sings:

> Willst du ins Unendliche schreiten? Geh nur im Endlichen nach allen Seiten.

As in the farthest stretches of our vision the horizon of earth blends with and is lost in the ethereal blue of the sky, so our ultimate speculations on the smallest atom of matter or the vastest sphere in the stellar universe lead from the earthly horizon of the physical to the heavenly horizon of the metaphysical—from the realm of the Finite to the realm of the Infinite in Cause and Space and Time.

Nor is this study unpractical or alien to human history. The speculations of Plato enter as really into the intellectual and moral education of the human race as the poems of Homer or the books of Euclid or the Institutes of Justin-

ian. It was the speculative philosophers of Greece who exalted the language of Greece to be the vehicle of those great ethical truths which were deposited in the Hebrew mind by a long line of splendid miracles, and by the cumbrous media of types and shadows addressed to an unspiritual generation. It was because the philosophers of Greece had unconsciously filled an important place in the Providential education of our race, that Paul, the great Apostle of the Gentiles, could stand on Mars' Hill and preach to the Athenians, in their own native language, the wonderful works of God-a proclamation which, on the day of Pentecost, required for its full utterance the miraculous tongues of flame. It was thus that St. Augustine, the great expounder of dogmatic Christianity in his day, delighted to confess in Plato a teacher second only to the Teacher of Galilee, and it is thus that the philosophy of Aristotle has organized the thought of men for twenty centuries, and under two dispensations—the heathen and the Christian; for it was not till Bacon had written his Novum Organum that the sceptre was wrested from the hands of this intellectual monarch among the sons of men. At more than one period the Christian Schools, as Jeremy Taylor expresses it, "have drawn some of their articles through the limbecs of Plato's philosophy," while the colossal figure of the great Stagirite casts such a mighty shadow across the ages that, on historic grounds, if no other, we must study the nature and the bearings of Grecian speculation. And the later phases of modern inquiry, under this head, whether in France, or Germany, or Great Britain, or in our own country, must equally engage our attention if we are to scale the empyreal altitudes of thought, where "Alps on Alps arise."

If in Language and Literature, in Mathematics, in the

Physical Sciences, and in Speculative Philosophy, we find the great fundamental elements of intellectual education, it is easy to perceive, as no less the law of necessity than of nature, that this education must proceed from the simple to the complex, from the concrete to the abstract, from the empirical to the rational. I do not fear that the art of education will ever be so far divorced from the science of education as to leave much room for error in fixing the order and succession of the studies that look to the equable and symmetrical development of the mental powers. If, as Horace says, we cannot drive out nature with a fork, neither can we prick on nature by a fork into premature intellectual activity without soon discovering the source of our error by the mischiefs to which it leads.

I cannot concur, therefore, with Mr. Herbert Spencer, when, as an inference from the manifold ways in which our mental powers may be excited and cultivated, he concludes that our most advanced modes of teaching "are not right ones or nearly the right ones." This is the very "dogmatism of despair," and not an inference justified by either the history or philosophy of education. And he seems to have sufficiently answered himself on this point, when, in another place, he propounds the doctrine that "the education of the child must accord both in mode and arrangement with the education of mankind, considered historically; or, in other words, that the genesis of knowledge in the individual must follow the same course as the genesis of knowledge in the race." If, therefore, we would know the logical order of studies in any given curriculum, we have but to learn their chronological order in the evolution and development of human knowledge. History is here our teacher—teaching us what to learn and how to learn if we would stand on the shoulders of the generations who have gone before us.

And hence it is easy to see that the number and quality and arrangement of studies in an university course are not arbitrarily fixed by educators, but are the outgrowth of man's intellectual tendencies in the past, and the highest expression of his intellectual wants in the present, as they are the indispensable conditions of future intellectual pro-They are not arbitrary, because they follow and reproduce the chronological order of intellectual development in human history. And this is the order, by following which the student lives into the life of humanity, and reaches out his hand to that ideal man in whom Pascal personified the whole human race—"a man who never dies, and who learns perpetually." The golden lamp of history sheds its light along the track of the past ages that we may review the steps already trodden by the great intellectual masters of the race, and that we may resume in this generation the culture of all the generations that have yet appeared on the globe. Any general system of education which accomplishes less than this must lead to retrogression rather than to progress.

And it is this order of studies which best lends itself to the purposes of professional culture and to proficiency in any branch of technology. He who has been thoroughly grounded in the elements of intellectual education is fitted to approach the study of Law, or Medicine, or Theology, as from a "coigne of vantage" which gives him an incalculable superiority over one who is ignorant of the relation in which his profession stands to the affiliated branches of human learning and the existing intellectual status of humanity. True, we cannot expect, in the present stage of knowledges, to "drive all the sciences abreast," as Leibnitz was said to do in his day, but we can aspire to such an universality of study as shall reveal to us the cross-lights by

which the sciences reciprocally illustrate each other, bound as they are to one another by a certain tie of relationship which makes them members of an inseparable sisterhood, like that of which Tasso spoke—

---- Ch'in esser belle

Mostran disparita ma somigliente.

"No perfect discovery can be made," says Bacon, "on a flat or a level; neither is it possible to discover the more remote and deeper parts of any science, if you stand but upon the level of the same science, and ascend not to a higher science." And so, as he adds in another part of his treatise on the "Advancement of Learning," "if any man think philosophy and universality to be idle studies, he doth not consider that all professions are from thence served and supplied." And this he took to be the great cause that had hindered the progression of learning, "because the fundamental knowledges have been studied but in passage."

And it is in immediate connexion with this view of his that he deplored the segregation which resulted from the dedicating of foundations and dotations to single branches of "professory learning." The foundations of university education should be as broad as the realm of knowledge in the sciences and in the arts of civilized life. In laying these foundations, we must understand our epoch; and in building on them, we must look to the mark of our high calling.

The men who founded seats of learning in the past—the kings and queens and princes and prelates and statesmen, and the more than princely merchants who have thus immortalized their names—may be truly said to have "builded wiser than they knew." Eton College, on the banks of the Thames, was founded by Henry VI, "to endure in all future time," as the residence of "twenty-five poor scholars, who

were there to learn grammar, and also of twenty-five poor and infirm men, whose duty it should be there continually to pray for the King's health and welfare so long as he lived, and for his soul after he had departed this life." But what a long line of illustrious men among the temporal and spiritual rulers of England—statesmen, warriors, divines, scholars and poets—has gone forth from those old monastic walls since the year 1440, when they were first dedicated to "Blessid Marie of Etone beside Wyndsore." It is nearly five hundred years since the first serge-clad scholar was led to the feet of William of Wykeham at Winchester, and still with all the superadded lights of the nineteenth century—

"His seventy faithful boys, in these presumptuous days,

Learn the old truth, speak the old words, tread in the ancient ways;

Still for their daily orisons resounds the matin chime;

Still linked in holy brotherhood, St. Catherine's steep they climb;

Still to their Sabbath worship they troop by Wykeham's tomb—

Still in the summer twilight sing their sweet song of Home."

How has the name of Oxford been transfigured from glory to glory as, taking its original title from the cattle who here were wont to ford the shallows of the Isis, it has since become the very Mecca of British scholarship, to which the tribes of English youth repair from year to year! How has Cambridge lengthened her cords and strengthened her stakes since the year 1110, when Master Gislebert, with three other monks, hired a barn on the banks of Cam, in which to give public lectures! "Thus from this small source," as the chronicle has it, "from this small source, which has swollen into a great river, we now behold the city of God made glad, and all England rendered fruitful by many teachers and doctors issuing from Cambridge, as from a most holy paradise."

As there is no source of blessing so perennial as that of

those who open the well-heads of learning in a dry and thirsty land, so there is no form of beneficence which preserves and hallows the memory like that which calls on the successive generations of men to rise up and bless the founders and benefactors of our Colleges and Universities. It is thus that at Oxford and at Cambridge a round of stated days is set apart for the solemn and grateful commemoration of all in their annals quorum benefacta late patent, to quote the words of the Cambridge statutes under this head. By what else in his unfortunate history is Henry VI so favorably known as by the foundation of that College whose antique towers are to-day his best monument, as they "crown the watery glades" near the Royal Castle of England? "Nations, and thrones, and reverend laws," says Sir Roundell Palmer,

Have melted like a dream,
Yet Wykeham's works are green and fresh beside the crystal stream.

In the light that streams through the stained-glass windows of his Colleges at Winchester and at Oxford, towering monuments as they are to his large-hearted and clear-headed philanthropy, the world has actually forgotten that is was this same munificent prelate who rebuilt the Royal Castle of the British kings, erected the grand nave of Winchester Cathedral, repaired the highways of England, spanned her rivers with bridges of solid masonry, recovered the Hospital of St. Cross from the rapacity of its masters, paid the debts of insolvent prisoners, and maintained at his hospitable board a retinue of daily pensioners.

How the name of Sir Thomas Gresham, that "Flower of Merchants," as he was called in the days of Queen Elizabeth, still smells sweet, and blossoms in the dust—leaving behind him, in the College which first gave shelter to the

"Royal Society" of Newton and his associates, a fragrance and splendor which surpass all the Flowers of Chivalry that bloomed in the wide tract of the Middle Ages. And hence it was that the lovers and friends of the saintly Keble in England, after he had sung the "Christian Year," and been gathered to the seven-fold harpings of the Chantry in Heaven, could find no memorial so suited to keep his name forever green as that which they reared in the College but recently dedicated to his memory, and which they have placed in the galaxy of Oxford, where it shall forever shine like a star in the firmament. If what he loved to call "the Oxford moral tone" shall ever die out at that University, we may be sure it will die out last of all in Keble College.

That was a wise choice and a noble which the sturdy burghers of Leyden made, when, after their dauntless struggle against the power of Spain, they were, as a reward for their valor, left to choose between the gift of a university and immunity from taxation. They chose the former, and thereby enriched not only themselves, but their posterity to the latest generation. And not their posterity alone, for it was a Professor of the University of Leyden, who, as editor of the Leyden Nouvelles Extraordinaires* in 1780, turned that influential organ of European public opinion in favor of American Independence at a time when John Adams, our Minister in Holland, could gratefully appreciate the value of such a championship, and it was this same Professor who helped to mould the mind of John Quincy Adams, whose name we cannot mention to-night with other than the reverence due to one who filled the Curule Chair of the Republic, and who was no less illustrious for his scholarship than for his public services. In this presence, I need but recall

^{*} A copy of this periodical for a series of years, embracing the term of John Adams's residence in Holland, may be found in the Library of Congress.

the fact that this student of Leyden University, after he became President of the United States, was among the most steadfast friends, and in the hour of its greatest need, one of the most liberal benefactors of the Columbian College, to establish in his favor, and in favor of that University beyond the sea, an additional claim on our gratitude.

History tells us how the star of Prussia paled before the meteoric genius of Napoleon, and a scholarly tradition also records that when, in 1807, she had gained a nominal peace, the King sent for Fichte, the celebrated Professor and speculative philosopher, to consult with him as to the best means for restoring Prussian prestige and power. Fichte was true to his character as a philosopher and a professor. vised the King, if he wished to regenerate Prussia, to found a university which should make Berlin not only the political capital of his Kingdom, but the intellectual capital of Germany, and even of Europe. Such, it is said, were the origin and motive of the University of Berlin, and from this heart of Prussia, as from a deep and ever-gushing Geyser, what a copious stream of learning has flowed out not only to quicken that Kingdom, but to gladden the world! And today, if you would read the secret of Sadowa and of Sedan, you must search for it not in arsenals crammed with needleguns, but in universities and in public schools, which make Prussia the most enlightened, and therefore the most powerful nation of Europe.

Shall our College, with its fair beginnings, become a well-head of knowledge and of power throughout the land? How has Harvard College, from its small beginnings, grown into a great University? Let President Felton answer: "John Harvard's gift, and the contributions of successive friends of learning in the early times, followed by the Hollises, the Alfords, the McLeans, the Gores, the Eliots, the Phil-

lipses, the Lawrences, the Appletons, the Grays''-(time would fail to name all the "saints" of the Harvard calendar)-" have made the institution what it is to-day "-the foremost University in the land. Our College, from the mere felicity of its situation at this metropolitan centre, where society is broad, liberal, and cultured, has many advantages. The learning of the present day, it is important to remark, no longer courts the shades of the cloister, but walks abroad along the highways of empire. Behold how, but a few weeks ago, the hand of Bismarck turned from protocols and papers of state to indite an autograph letter to a private citizen of Italy, the Count Trivulzio, begging, in behalf of Professor Mommsen, the loan of a few old Latin inscriptions which the Professor needed to clear up some disputed question in the Roman history he is writing, not for Prussian scholars alone, but for the whole There is nothing esoteric in the learning literary world. of our day. And what advantages are ours, both for gaining and diffusing the blessings of highest culture! here, at our very doors, we have the Smithsonian Institution, perpetually working, under the guidance of its illustrious Secretary, on the boundaries of knowledge in all departments, thus literally fulfilling the will of its founder and exemplifying the highest function of a university, by increasing and diffusing knowledge among men. here is the National Library of Congress, with its well-filled alcoves, open alike to teachers and scholars for purposes of literary or scientific research; and here, for the study of Technology, are the accumulated fruits of American inventive genius stored in the Patent Office; and here, for the progressive scientific study of Astronomy, is the National Observatory; and here is that no less learned than useful school of practical geometers connected with the Coast

Survey; and here are the gardens which, under the keeping of the Agricultural Department, invite to the study of Botany, not in dry herbaria and in dryer tomes, but amid flowery walks through which Shenstone would have loved to ramble by the side of Linnæus or Hasselquist. And here, for the student of Law, are the highest seats of our American Themis, as here, for the votaries of the healing art, are the priceless treasures of the Medical Museum, without any rival in the world among institutions of its kind; and here, by the munificence of him who stands at the head of the governing Board of our College, is the Corcoran Gallery of the Fine Arts, to keep alive the love of beauty in the soul of man.

God grant that the day may not be far distant when our College, already a University in embryo, may be able, by the munificence of its endowments, and therefore by the range of its studies, to take advantage of all these singular opportunities for promoting true culture in all its depart-"Learning," says a modern educator, "may be got from books, but not culture. This latter is a more living process, and requires that the student shall at times close his book, leave his solitary room, and mingle with his fellow-men." Where can he do this so well and so profitably as here, in this Capital of the Nation—here, where, as Bacon desiderated, we have "straitly conjoined" the conditions both of contemplation and action-"a conjunction like unto that of the two highest planets-Saturn, the planet of rest and contemplation, and Jupiter, the planet of civil society and action?" When our University, from these high places of the land shall send her quickening beams throughout the length and breadth of the nation, we shall have realized equally the prayers of its pious founders and the patriotic aspirations of Washington and Jefferson, of Madison and Monroe, as of their illustrious compeers—but not till then. As they labored and prayed for a National University at the seat of the National Government, so to this same end let us labor and pray in our generation, that we may build worthily and wisely and munificently on the foundations laid by the Fathers. And thus, perhaps, in this the fiftieth year of our academic history, the chime of the next Christmas bells shall sweetly blend with the trumpets of our Jubilee.



